IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-5 in accordance with the following:

1. (CURRENTLY AMENDED) A design method for a bus system equipped with a plurality of device units, a data bus on which said plurality of device units are connectible, a timing-signal supply source ~~for~~ supplying a timing signal to said plurality of device units through a timing-signal bus, a bus switch ~~for~~ connecting and disconnecting a signal between ~~the~~ said plurality of device ~~unit~~ units and said data bus, and a bus-switch control part ~~for~~ controlling the connecting and disconnecting operations of said bus switch, said design method comprising:

~~a noise propagation computation step of~~ computing, for each of said plurality of device units, based on a cycle of said timing signal, a signal propagation delay in ~~the~~ each one of said plurality of device ~~unit,~~ units, signal propagation delays in said timing-signal bus and said data bus, and a setup time in ~~the~~ another one of said plurality of device ~~unit~~ units or another device connected on said data bus, timing at which, when ~~the~~ each one of said plurality of device ~~unit~~ units is connected on said data bus being active, noise propagates to the ~~remaining~~ other one of said plurality of device units ~~other than said connected device unit~~ or to ~~said~~ the other device connected on said data bus; and

~~a connection timing computation step of~~ computing, based on said computed timing ~~computed in said noise propagation computation step~~, connection timing at which each one of said plurality of device ~~unit~~ units is connected on said data bus.

2. (CURRENTLY AMENDED) The design method as set forth in claim 1, wherein in said ~~connection timing computation step~~computing, based on said computed timing, said connection timing is computed by computing a delay time "b" needed for said bus switch to connect each one of said plurality of device ~~unit~~ units on said data bus after each one of said plurality of device ~~unit~~ units is connected on said timing-signal bus.

3. (CURRENTLY AMENDED) The design method as set forth in claim 1, wherein:

in said ~~noise propagation computation step~~computing, for each of said plurality of

device units, a timing margin M {= (T + g) – (a + b + c + d + e + f) – S} between arrival of said noise at the other one of said plurality of device units ~~other than the connected device unit~~ or the other device connected to said data bus and start of said setup time is computed as propagation timing of said noise, based on cycle "T" of said timing signal, skew "a" from said timing-signal supply source to said bus switch control part, delay time "b" of said bus switch, signal propagation delay time "c" between said bus switch control part and said bus switch, operating delay time "d" of said bus switch, pulse width (time) "e" of said noise, propagation delay time "f" of said noise in each one of said plurality of ~~said connected~~ device ~~unit~~ units and said data bus, skew "g" from said timing-signal supply source to the other one of said plurality of device units ~~other than said connected device unit~~ or the other device connected on said data bus, and setup time "S" in said bus system~~;~~, and

in said ~~connection timing computation step~~computing, based on said computed timing, the delay time "b" of said bus switch is computed so that said timing margin M is 0 or greater.

4. (CURRENTLY AMENDED) A bus system comprising:

a plurality of device units;

a data bus on which said plurality of device units are connectible;

a timing-signal supply source ~~for~~ supplying a timing signal to said plurality of device units through a timing-signal bus, a bus switch ~~for~~ connecting and disconnecting a signal between ~~the~~ said plurality of device ~~unit~~ units and said data bus; and

a bus-switch control part ~~for~~ controlling the connecting and disconnecting operations of said bus switch;

wherein said bus-switch control part controls said bus switch so that ~~the~~ each one of said plurality of device ~~unit~~ units is connected on said data bus after a delay time "b" of said bus switch from connection of ~~said~~ each one of said plurality of device ~~unit~~ units with said timing-signal bus~~;~~,

and wherein, based on cycle "T" of said timing signal, skew "a" from said timing-signal supply source to said bus switch control part, the delay time "b" of said bus switch, signal propagation delay time "c" between said bus switch control part and said bus switch, operating delay time "d" of said bus switch, pulse width (time) "e" of noise caused when ~~the~~ each one of said plurality of device ~~unit~~ units is connected on said data bus being active, propagation delay time "f" of said noise in ~~the~~ each one of said plurality of device ~~unit~~ units and said data bus, skew "g" from said timing-signal supply source to ~~the~~ another one of said plurality of device units

~~other than the connected device unit~~ or another device connected on said data bus, and setup time "S" in said bus system, the delay time "b" of said bus switch is computed as a value such that a timing margin M {= (T + g) – (a + b + c + d + e + f) – S} from arrival of said noise at the other one of said plurality of device units ~~other than the connected device unit~~ or ~~said~~ the other device to start of said setup time is 0 or greater.

5. (CURRENTLY AMENDED) A device unit connectible to a printed-circuit board equipped with a data bus, a timing-signal supply source, and a timing-signal bus connected to said timing-signal supply source, comprising:

a bus switch ~~for~~ connecting and disconnecting a signal between said device unit and said data bus; and

a bus-switch control part ~~for~~ controlling the connecting and disconnecting operations of said bus switch;

wherein said bus-switch control part controls said bus switch so that ~~the~~ said device unit is connected on said data bus after a delay time "b" of said bus switch from connection of said device unit with said timing-signal bus~~;~~, and

wherein, based on cycle "T" of said timing signal, skew "a" from said timing-signal supply source to said bus switch control part, the delay time "b" of said bus switch, signal propagation delay time "c" between said bus switch control part and said bus switch, operating delay time "d" of said bus switch, pulse width (time) "e" of noise caused when ~~the~~ said device unit is connected on said data bus being active, propagation delay time "f" of said noise in ~~the~~ said device unit and said data bus, skew "g" from said timing-signal supply source to another device ~~units~~ unit other than ~~the connected~~ said device unit or another device connected on said data bus, and setup time "S" in said bus system, the delay time "b" of said bus switch is computed as a value such that a timing margin M {= (T + g) – (a + b + c + d + e + f) – S} from arrival of said noise at the other device ~~units~~ unit ~~other than the connected device unit~~or ~~said~~ the other device to start of said setup time is 0 or greater.